

X KEPRINTA

Friday, April 24, 2015 2:17:15 PM

Page 1

Item ID: D2741

Revision ID:

Item Name: Replacement Blade

Start Date: 9/08/14

Start Qty: 20.00

Required Date: 9/19/14

Req'd Qty: 20.00

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date: _____

QC:

Date:

SPC (Y/N):

Date:

Run

Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2741	E								
100									
100	BAND SAW	0.00							
Bandsaw									
Jeaspa Bandsaw	Memo	0.00							
	Cut blanks 13.850" long +0.063" -0.000"								
110									
110	HAAS CNC VERTICAL MACHINING #1	0.00							
HAAS 1									
HAAS CNC vertical machine #1	Memo	0.00							
	1-Machine per folio FA108								
	SEE NOTE 9 FOR HOLES								
120									
120	QC2- Inspect parts off machine FAI/FAIB	0.00							
QC									
Quality Control	Memo	0.00							

Work Order ID 124048

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Item ID: D2741

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Replacement Blade

Start Date: 9/08/14 Start Qty: 20.00

20

Cust Item ID:

Required Date: 9/19/14 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.00

Quality Control

140

Small Fab

0.00

140

Small Fab

Memo

0.00

Small Fab

1-Deburr
2-Bend per Dwg D2741

150

QC5- Inspect part completeness to step on W/O

0.00

150

QC

Memo

0.00

Quality Control

Work Order ID 124048

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Item ID: D2741 Accept *N900040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: Replacement Blade
Start Date: 9/08/14 Start Qty: 20.00 *20* Cust Item ID:
Required Date: 9/19/14 Req'd Qty: 20.00 *20* Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Outsource process - Heat Treat	0.00							
160									
Outsource1	Memo	0.00							
Outsource process - Heat Treat	Issue P/O: 25995 Harden material as per Dwg D2741 Min. Ultimate Tensile Strength = 152 ksi (34.40 HRC) Min. Yield Tensile Strength = 141 ksi Test report or Certification required **Sand blast parts**								
170	Receive & Inspect for Damage & Mat'l Certs	0.00							
170									
Packaging	Memo	0.00							
Packaging	Ensure Test report or Certification attached								

CZ 14/10/07

Work Order ID 124048

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Item ID: D2741

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Replacement Blade

Stop *NS2*

Start Date: 9/08/14

Start Qty: 20.00

20

Cust Item ID:

Required Date: 9/19/14

Req'd Qty: 20.00

20

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180

QC5- Inspect part completeness to step on W/O

0.00

180

QC

Memo

0.00

Quality Control

190

0.00

190

HandFinish

Memo

0.00

Hand Finishing

clean with wash & wipe to remove oil

200

White Gloss(Ref:4.3.5.2) per QSI005 4.3-Steel

0.00

200

Powdercoat

Memo

0.00

Powder Coating

START TIME: _____

OVEN TEMPERATURE: _____

FINISH TIME: _____

Work Order ID 124048

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Item ID: D2741

Accept

Revision ID:

N900040100

Setup Start

NS1

Item Name: Replacement Blade

Stop

NS2

Start Date: 9/08/14 Start Qty: 20.00

20

Required Date: 9/19/14 Req'd Qty: 20.00

20

Cust Item ID:

Reference:

Customer:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run

Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

210

QC3- Inspect Part Finish

0.00

210

QC

Memo

0.00

Quality Control

220

Identify as per dwg & Stock Location: _____

0.00

220

Packaging

Memo

0.00

Packaging

230

QC21- Final Inspection - Work Order Release

0.00

230

QC

Memo

0.00

Quality Control

Picklist Print

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Page 1

Work Order ID: 124048

124048

Parent Item: D2741

D2741

Parent Item Name: Replacement Blade

Start Date: 9/08/14

Required Date: 9/19/14

Start Qty: 20.00

Required Qty: 20.00

Comments:

IPP Rev: D00.11.15Removed P/O turning - in house processEC

IPP Rev: E 06-03-20 As Per Rev C

IPP Rev: F 06.04.20Added grinding after heat treating EC

JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M4130NB0.500X03.00 0		Purchased	No			100	f	37.2000	1.1541	25			

M4130NB0 500X03 000

4130 Bar 0.500 x 3.00

**

Location

Loc Qty

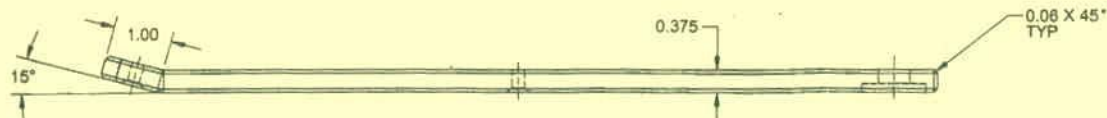
Loc Code

MAT

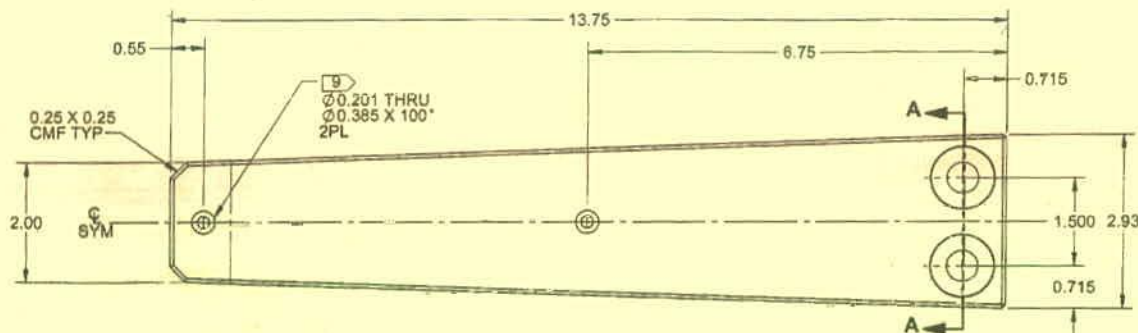
37.2

m131783

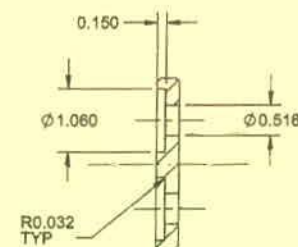
37.2



D2741 BLADE
(MAKE FROM D2741F)



D2741F FLAT PATTERN



SECTION A-A

RELEASED
2014-04-06
MD

NOTES:

- 1) MATERIAL: AISI 4130N STEEL BAR PER MIL-S-6758 OR AMS 6345/6346/6370/6528
REF DART SPEC. M4130N-B0.500X3.000
- 2) FINISH: D2741: POWDER COAT "WHITE" (4.3.5.2) PER DART QSI 005 4.3
D2741-NP: NO PAINT
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.030 TO 0.060 MAX
- 6) IDENTIFICATION: WITH DART P/N "D2741" OR D2741-NP, AND B/N "BXXXXX", PER DART QSI 044 6.1 (FINE POINT PAINT MARKER)
- 7) WEIGHT: 3.3 lbs
- 8) HEAT TREAT TO MIN. ULTIMATE TENSILE STRENGTH = 152 ksi AND MIN. YIELD TENSILE STRENGTH = 141 ksi
PER MIL-S-6758 OR AMS2759/1E AFTER MACHINING.
ACCEPTABLE TO VERIFY TENSILE STRENGTH BY HARDNESS TEST PER ASTM E18 TO 34-40 HRC.
- 9) OPTIONAL: ONLY REQUIRED WHEN MAKING D350-636-215/-216/-217/-218, NOT APPLICABLE ON D2741-NP.

E	ADD D2741-NP (NO PAINT) OPTION (ZN A5-1)	DB	13.08.29
D	ADD Ø0.201 HOLES AND NOTE 10 (ZN D7-1). REMOVE -041/-043 OPTIONS REFORMAT DWG. REF PART11-72	SFM	13.02.21
C	LARGER HOLE, ADD RADIUS AND CHAMFER ADD -041/-043 OPTIONS	PH	06.01.12
B	CHANGE C'SINK TO C'BORE	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE USA, INC. KENT, WA	
DRAWN	DB		
CHECKED	AP	DRAWING NO.	REV. 6
MFG. APPR.	MD	D2741	SHEET 1 OF 1
APPROVED	MD	TITLE	SCALE
DE APPR.	MD	BLADE	NTS
DATE	13.08.29	COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO25995

Purchase Order Date 10/2/2014
PO Print Date 4/24/2015

Page Number 1 of 2

Order From :

METCOR INC.
560 BOUL. ARTHUR SAUVE
SAINT-EUSTACHE, QC J7R 5A8
CA

VC-MET004

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone

450 473 1884

Ship To Contact

Ship To Phone

Ship Via:

TST Overland

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	124048	D2741 BLADE	10/17/2014 Yes 10/17/2014		47.00	\$12.52	\$588.38
HARDEN MATERIAL: ULTIMATE TENSILE STRENGTH = 152 KSI MINIMUM YIELD TENSILE STENGHT = 141 KSI (34-40 HRC) SAND BLAST PART AFTER HEAT TREAT NOTE: DETAIL C OF C REQUIRED NOTE: DO NOT MIXED BATCHES							
Line Total:							\$588.38
2	124047	D2740 BLADE	10/17/2014 Yes 10/17/2014		17.00	\$12.52	\$212.82
HARDEN MATERIAL: ULTIMATE TENSILE STRENGTH = 152 KSI MINIMUM YIELD TENSILE STENGHT = 141 KSI (34-40 HRC) SAND BLAST PART AFTER HEAT TREAT NOTE: DETAIL C OF C REQUIRED NOTE: DO NOT MIXED BATCHES							

Note:

4/24/2015



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO25995

Purchase Order Date 10/2/2014

PO Print Date 4/24/2015

Page Number 2 of 2

Order From :

VC-MET004

Ship To : DART AEROSPACE LTD

METCOR INC.
560 BOUL. ARTHUR SAUVE
SAINT-EUSTACHE, QC J7R 5A8
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 450 473 1884

Ship To Contact

Ship To Phone

Ship Via: TST Overland

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency CAD

FOB FCA - (Free Carrier)

Line Total: \$212.82

3	71401-45	PROCUREMENT QUALITY CLAUSES	10/17/2014	1.00	\$0.00	\$0.00
			No 10/17/2014			

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A020 non-destructive test/inspection identification

A021 dart aerospace processing

A024 process certifications

A026 certification of material conformance

Line Total: \$0.00

PO Total: \$801.20

CL

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 4

Change Date: 4/24/2015

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Rapport d'Inspection**Inspection Report**

BON DE TRAVAIL order	CHARGEMENT load
199343	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

1

COMMANDE DU CLIENT customer po	BON DE LIVRAISON DU CLIENT customer shipper no.	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
25995		4130		
SPECIFICATIONS DU PROCÉDÉ processing specifications SEL HARDEN HARDEN AND TEMPER SAE AMS 2759/1 REV.E				
EXIGENCE / requirement SPECIFICATIONS / specified TESTS EXÉCUTÉS / performed RÉSULTATS DE TESTS / results				
HARDNESS	34 - 40 HRC	64	37 - 38 HRC	
TENSILE (KSI)	152 - 182 KSI		166 - 171 KSI	

QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description
64	222.12	D2741 BLADE (47) D2741 BLADE ORDER. 124048 (17) D2740 ORDER. 124047 1 PAL = 5 BC

COMMENTAIRES / comments

17/10/2014

APPROUVÉ par / Approved by:



DATE: 2014-10-21

POUR APPROBATION

Work Order Summary

April-29-15 12:53:07 PM

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Criteria : Work Order ID: 124048 Item ID: D2741 Product Family MACHINING
 Work Order Start Dates 9/08/14 to 9/08/14 11:59:59 PM Work Order Required Dates 9/19/14 to 9/19/14
 11:59:59 PM
 All References
 Work Order Status Released

Work Order ID	124048	Required Qty	20.0000	Status Code	Released
Item ID	D2741	Accepted Qty	0.0000	Scrap Qty	0.0000
Item Name	Replacement Blade				
Current Acct Value	\$94.553				
Start Date	9/08/14	Required Date	9/19/14	Completed Date	
Standard	** Actual **		** Acct. Value **	** Variance **	** Variance % **
Direct Costs	Total	Each	Each	Each	Each
Material	\$1,533.969	\$0.000	\$33.366	\$33.366	100.00%
Labor	\$724.103	\$0.000	\$5.078	\$5.078	100.00%
Outplant	\$525.366	\$0.000	\$1.654	\$1.654	100.00%
Variable Burden	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
Fixed Burden	\$1,598.176	\$0.000	\$11.150	\$11.150	100.00%
Material Burden	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
** Total **	\$4,381.613	\$0.000	\$51.248	\$51.248	

Item ID/Item Name	Required Qty	Issue Code	Issue Date	Issued Qty	Cost Amount
PO ID	PO Line Nbr	PO Receiver Date	Domestic Unit Price	PO Receipt Qty	Domestic Received Amt
M4130NB0.500X03.000					
4130 Bar 0.500 x 3.00					
PO Rout Seq ID	PO Vendor ID	VC-MET004	9/16/14	56.0000	\$1,533.959
PO25995 1	10/27/14 8:19:21 AM	\$0.0000	-47.0000	\$0.000	m130698
PO25995 1	10/30/14 3:06:58 PM	\$11.1780	47.0000	\$525.366	Total Matl Amts: \$1,533.969
PO25995 1	10/27/14 8:19:21 AM	\$0.0000	47.0000	\$0.000	m130698

Invoice Rout Seq ID		Invoice Vendor ID	VC-MET004		
Invoice ID	Invoice Line Nbr	Invoice Date	Invoice Unit Price	Invoice Qty	Invoice Amt
10-308347	1	10/23/14 3:12:17 PM	11.177991875	47.0000	\$525.366

Work Center HAAS 1

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
CADI02	9/16/14											
110			0.00	0.00	4.34	4.34	1.00	\$0.000	\$95.834	\$209.767	\$0.000	\$305.60
	9/17/14											
110			0.00	0.00	11.90	11.90	1.00	\$0.000	\$262.684	\$574.977	\$0.000	\$837.66
PERR01	9/18/14											
110			0.00	0.00	11.74	11.74	1.00	\$0.000	\$259.122	\$567.182	\$0.000	\$826.30
	9/19/14											
110			0.00	0.00	4.06	4.06	1.00	\$0.000	\$89.614	\$196.152	\$0.000	\$285.76

April-29-15 12:53:07 PM

Work Order Summary

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Total:	0.00	0.00	32.03	32.03	4.00	\$0.000	\$707.253	\$1,548.078	\$0.000	\$2,255.33
---------------	------	------	-------	-------	------	---------	-----------	-------------	---------	------------

Work Center Small Fab

Employee ID	Route Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
BOUC01												
	9/24/14											
140			0.25	0.25	0.58	0.58	1.00	\$5.055	\$11.794	\$50.098	\$0.000	\$66.94
Total:			0.25	0.25	0.58	0.58	1.00	\$5.055	\$11.794	\$50.098	\$0.000	\$66.94

